WA 3019
9-14-01
1 of f

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September 14, 2001

Kim Ogle, RCRA Project Manager
United States EPA, Region 10
1200 Sixth Avenue
Seattle, WA 98101

Re: September 15, 2001 Progress Report
J. H. Baxter Arlington Facility
Docket No. RCRA-10-2001-0086
7026-20

Dear Ms. Ogle:

This letter provides the September 15, 2001 progress report for work completed under the Administrative Order on Consent (AOC) for the J. H. Baxter facility during the period August 7, 2001 to September 15, 2001.

SIGNIFICANT DEVELOPMENTS THIS PERIOD

This section discusses all significant developments for the referenced reporting period, including actions performed and any problems encountered relative to work required by the Order. Significant developments that occurred on this project during this reporting period include:

- We received a draft sub-set of comments from EPA on the Site Investigation Work Plan on September 4, 2001.
- On September 10, 2001 we received a request from EPA to collect split samples during the next round of drinking water well sampling. The AOC and Drinking Water Work Plan require sampling approximately 6 months from the last sampling (conducted on June 26, 2001). Because this time period occurs during the Christmas holiday, we mutually agreed to conduct the sampling during the second week in January 2002.
- On September 10, 2001 we received EPA's partial disapproval of the Excess Stormwater Management Work Plan requiring submittal of a Revised QAPP for the Excess

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Stormwater Management Work Plan. Other elements of the system design and construction were approved, and design work has thus begun.

- We are still awaiting Ecology's approval of the contained-in determination, however, we understand that this will forth be coming upon EPA's approval of the Excess Stormwater System.

ANTICIPATED DEVELOPMENTS NEXT PERIOD

This section discusses developments anticipated during the next reporting period and includes a schedule of actions to be performed.

- With approval of the excess stormwater system design work we are planning to complete the infiltrometer tests during the Week of September 16, 2001. These data will be used to complete the hydrologic analysis of the site and locate the infiltration areas. We have excluded the infiltration area along the south-eastern boundary of the site based on review of the available water level data, which indicates that water levels may come within 4 to 5 feet of ground surface in this area during wet winter months.

- We will be revising the QAPP for the Excess Stormwater Management System in accordance with Enclosure A of EPA's partial disapproval of the Excess Stormwater Management Work Plan. We have requested an extension to the requirement for this plan to be submitted within 15 days. If EPA grants the extension, the QAPP will be re-submitted on October 15, 2001.

- We are currently working to schedule a meeting with EPA to discuss the conceptual site model, data upon which the conceptual model is based, and the proposed work plan proposed to fill data gaps.

ANTICIPATED PROBLEMS AND PROBLEM RESOLUTION

This section discusses anticipated problems, and planned resolution of past or anticipated problems.

Other than the request for a 20-day extension on the required submittal date for the ESWMWP QAPP, there are no anticipated problems to report.

OTHER INFORMATION

Any other information relevant to the Order is discussed in this section, including results of any sampling or testing completed within the reporting period.

- The results of the July 2001 groundwater sampling conducted as part of the State Waste Discharge permit are included as Attachment A to this letter.

We trust this letter meets the intent of the Progress Report per Paragraph 71 of the AOC. Please let us know if you have any questions or comments on the work conducted to date or contents of this report.

Sincerely,

HART CROWSER, INC.

Lori Herman

LORI HERMAN
Principal Hydrogeologist

C:\Data\Baxter\Order Deliverables\Progress Letter 9-15-01.doc

Attachment A: Memorandum Re: July 2001 Groundwater Quality Sampling Data

cc: Georgia Baxter, J. H. Baxter
Sara Beth Watson, Steptoe and Johnson

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MEMORANDUM

DATE: August 29, 2001

TO: Project File
J.H. Baxter Groundwater Samples Chemistry Analytical Data

FROM: Roger McGinnis, Hart Crowser

RE: **Data Quality Review of Laboratory Batches K2104874, K2104907, K2104914, and K2105011**
July 2001, Groundwater Sampling Data
7026-03

CC: Lori Herman, Hart Crowser

CHEMICAL DATA QUALITY REVIEW

Eighteen groundwater samples (including three field duplicates and three field blanks) collected from the J.H. Baxter Arlington facility on July 9 - 12, 2001 were submitted to Columbia Analytical Services for analysis. Samples were analyzed for pentachlorophenol, dissolved metals, suspended solids, and conventional groundwater quality parameters (pH, conductivity, chloride, sulfate, nitrate, nitrite, ammonia, total organic carbon, total dissolved solids, chemical oxygen demand), tanins/lignins, and total coliform. The laboratory reported results as batches K2104874, K2104907, K2104914, and K2105011.

Quality assurance/quality control (QA/QC) reviews of laboratory procedures were performed on an ongoing basis by the laboratory. Hart Crowser performed the data review, using laboratory quality control results summary sheets and raw data, as required, to ensure they met data quality objectives for the project. Data review followed the format outlined in the National Functional Guidelines for Organic Data Review (EPA 1994) and the National Functional Guidelines for Inorganic Data Review (EPA 1994) modified to include specific criteria of the individual analytical methods. The following criteria were evaluated in the standard data quality review process:

- Holding times;
- Method blanks;

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- Laboratory and field blank samples;
- Surrogate recoveries, when applicable;
- Laboratory and field duplicate samples; and
- Reporting limits.

The data were determined to be acceptable for use, with certain qualifiers. Results of the data reviews, organized by analysis class, follow.

Conventional Groundwater Parameters

Sample Preservation and Holding Times

The samples were collected in pre-preserved bottles. The temperature for BXN samples as received by the laboratory, were within the limits of 2 to 6 °C. BXN and BXS samples for total coliform and pH analysis were received several hours past the 24-hour holding time limit. Coliform and pH results were qualified as estimated (J). Coliform results may exhibit a high bias.

Laboratory Detection Limits

The laboratory achieved specified detection limits. Reported detection limits and analytical results were adjusted for any required dilution factors.

Blank Contamination

No target analytes were detected in laboratory blanks. Samples BXN-6 and BXS-5 were submitted to the laboratory as blind field blanks. Field blank sample BXN-6 contained 1.57 mg/L of ammonia. Sample results for this analyte were qualified as non-detected when sample concentrations were less than five times the concentration in the associated blanks.

Duplicate Sample Analysis

Sample BXN-5 was submitted to the laboratory as a "blind" duplicate of sample BXN-1 while BXS-6 was a duplicate of BXS-1. The relative percent difference between duplicate measurements was within QC criteria for analytes except conductivity and ammonia for samples BXN-1 and BXN-5, which had relative percent differences of 158 and 165 percent, respectively. Results for these analytes were qualified as estimated (J) for samples BXN-1 and BXN-5.

Metals

Sample Preservation and Holding Times

The samples were collected in pre-preserved bottles. The samples were prepared and analyzed within holding time limits of 6 months.

Laboratory Detection Limits

The laboratory achieved specified detection limits. Reported detection limits and analytical results were adjusted for any required dilution factors.

Blank Contamination

Samples MWB, BXN-6 and BXS-5 were submitted to the laboratory as blind field blanks. No target analytes were detected in laboratory or field blanks

Duplicate Sample Analysis

Sample BXN-5 was submitted to the laboratory as a "blind" duplicate of sample BXN-1, BXS-6 was a duplicate of BXS-1, and MWA was a duplicate of MW2. The relative percent difference between duplicate measurements met quality control limits of less than 35 percent for analytes.

Pentachlorophenol

Sample Preservation and Holding Times

Samples were preserved by cooling to 4 °C. The samples were extracted and analyzed within holding time limits of 7 and 40 additional days.

Laboratory Detection Limits

The laboratory achieved specified detection limits. Reported detection limits and analytical results were adjusted for any required dilution factors.

Calibration

The laboratory noted that the continuing calibration criteria were not met for the second, confirmation column. Results were reported using concentrations obtained from the primary column. No data qualification was required.

Blank Contamination

Sample MWB was submitted to the laboratory as a blind field blank. No target analytes were detected in laboratory or field blanks.

Surrogate Recovery

The surrogate compound recoveries were within laboratory QC limits.

Duplicate Sample Analysis

Sample MWA was submitted to the laboratory as a "blind" duplicate of sample MW2. The relative percent difference between duplicate analyses was within QC limits of less than 35 percent.

Attachments:
Table 1 - Groundwater Analytical Data Summary
Groundwater Analytical Data
Columbia Analytical Services, Inc.

F:\Docs\Jobs\702603\GW_Memo7_01.doc

Groundwater Analytical Data

Lab ID	K2104874-001	K2104874-002	K2104874-003	K2104874-004	K2104874-005	K2104874-006	K2104907-001	K2104914-001
Sample ID	BXN-1	BXN-2	BXN-3	BXN-4	BXN-5	BXN-6	BXS-1	BXS-1
Sampling Date	7/09/2001	7/09/2001	7/09/2001	7/09/2001	7/09/2001 Dup of BXN-1	7/09/2001 Field Blank	7/10/2001	7/10/2001
Conventionals in mg/L *								
Ammonia as Nitrogen	17 J	1.1 UJ	1.3 UJ	18	1.64 UJ	1.57	0.05 U	
Bicarb. Alkalinity as CaCO3							242	
Chemical Oxygen Demand	5 U	7	30	31	6	5 U	23	
Chloride	40.9	8.4	23	26.8	42.8	0.2 U	5.6	
Conductivity	392 J	224	705	647	3310 J	2 U	489	
Nitrate+Nitrite as Nitrogen	1.1	2.2	0.2 U	0.5	1.1	0.2 U	0.4	
pH	6.4 J	6.5 J	6.49 J	6.7 J	6.31 J	5.61 J	6.09 J	
Sulfate	19.2	16.7	10.7	10	19.7	0.2 U	7.2	
Total Dissolved Solids	226	134	424	316	230	10 U	212	
Total Organic Carbon	1.7	2.3	8.5	10.4	2.4	0.5 U	6.8	
Tannin and Lignin	0.7	0.3	2.8	2.9	0.5	0.2 U	0.5	
Coliforms in MPN/100 mL	4 J	2 UJ	2 UJ	2 UJ	2 J	2 UJ	2 UJ	
Total Suspended Solids								5 U
Dissolved Metals in µg/L								
Arsenic	5 U	5 U	19	5 U	5 U	5 U	5 U	
Barium	19	7	119	120	20	5 U	27	
Cadmium	4 U	4 U	4 U	4 U	4 U	4 U	4 U	
Calcium								46800
Copper	10 U	10 U	10 U	24	10 U	10 U	10 U	
Iron	3340	20 U	31300	48	3370	20 U	20 U	20 U
Magnesium								28700
Manganese	1510	849	4440	5330	1540	5 U	396	
Nickel	39	26	44	73	36	20 U	27	
Potassium								2000 U
Sodium								12200
Zinc	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Phenols in µg/L								
Pentachlorophenol								25

Groundwater Analytical Data

Lab ID	K2104907-002	K2104907-003	K2104907-004	K2104907-005	K2104907-006	K2105011-002	K2105011-003	K2105011-004
Sample ID	BXS-2	BXS-3	BXS-4	BXS-5	BXS-6	HCMW5	HCMW6	HCMW7
Sampling Date	7/10/2001	7/10/2001	7/10/2001	7/10/2001 Field Blank	7/10/2001 Dup of BXS-1	7/12/2001	7/11/2001	7/12/2001
Conventionals in mg/L *								
Ammonia as Nitrogen	0.05 U	0.11	0.53	0.05 U	0.05 U			
Bicarb. Alkalinity as CaCO3	496	498	96	2 U	250			
Chemical Oxygen Demand	46	71	38	5 U	24			
Chloride	6.7	4.4	2	0.2 U	5.5			
Conductivity	890	885	193	2 U	490			
Nitrate+Nitrite as Nitrogen	0.2 U	0.2 U	0.2 U	0.2 U	0.4			
pH	6.44 J	6.64 J	7.96 J	5.53 J	6.12 J			
Sulfate	0.3	0.2	1.6	0.2 U	7.1			
Total Dissolved Solids	320	420	134	5 U	262			
Total Organic Carbon	15.1	25.9	9.3	0.5 U	7.3			
Tannin and Lignin	1.4	6.4	0.4	0.2 U	0.5			
Coliforms in MPN/100 mL	500 J	2 UJ	2 UJ	2 UJ	2 UJ			
Total Suspended Solids						5 U	218	2910
Dissolved Metals in µg/L								
Arsenic	5 U	9	5	5 U	5 U			
Barium	53	64	32	5 U	27			
Cadmium	4 U	4 U	4 U	4 U	4 U			
Calcium						13200	10900	13000
Copper	10 U	10 U	10 U	10 U	10 U			
Iron	736	8530	438	20 U	20 U	20 U	26	20 U
Magnesium						7660	7040	7790
Manganese	1540	17100	123	5 U	400			
Nickel	41	38	20 U	20 U	26			
Potassium						2000 U	2000 U	2000 U
Sodium						5560	4480	5880
Zinc	10 U	10 U	10 U	10 U	10 U			
Phenols in µg/L								
Pentachlorophenol						0.5 U	1.3	0.5 U

Groundwater Analytical Data

Lab ID	K2105011-001	K2105011-005	K2105011-006
Sample ID	MW2	MWA	MWB
Sampling Date	7/12/2001	7/12/2001	7/12/2001
		Dup of MW2	Field Blank
Conventionals in mg/L *			
Ammonia as Nitrogen			
Bicarb. Alkalinity as CaCO3			
Chemical Oxygen Demand			
Chloride			
Conductivity			
Nitrate+Nitrite as Nitrogen			
pH			
Sulfate			
Total Dissolved Solids			
Total Organic Carbon			
Tannin and Lignin			
Coliforms in MPN/100 mL			
Total Suspended Solids	5 U	5 U	5 U
Dissolved Metals in µg/L			
Arsenic			
Barium			
Cadmium			
Calcium	10600	10600	50 U
Copper			
Iron	20 U	20 U	20 U
Magnesium	6660	6560	
Manganese			
Nickel			
Potassium	2000 U	2000 U	2000 U
Sodium	5660	5520	100 U
Zinc			
Phenols in µg/L			
Pentachlorophenol	0.5 U	0.5 U	0.5 U

* Units for conventionals are mg/L unless otherwise noted.

U not detected at detection limit indicated

J estimated concentration

Columbia Analytical Services INC.
An Employee-Owned Company

August 7, 2001

Service Request No: K2105011
K2104914

Richard Morales
J.H. Baxter Company
1700 El Camino Real
P.O. Box 5902
San Mateo, CA 94402-0902

Re: Permit Monitoring Wells

Dear Richard:

Enclosed are the results of the sample(s) submitted to our laboratory on July 14, 2001. For your reference, these analyses have been assigned our service request number K2105011.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3345.

Respectfully submitted,

Columbia Analytical Services, Inc.

Mingta Lin
Project Chemist

ML/ll

cc: Mary Larson, J.H. Baxter (Arlington)
Lori Herman, Hart Crowser (Seattle)

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 360/ 577-7222 • Fax 360/636-1068

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	J.H. Baxter & Company	**Service Request No.:**	K2104914 K2105011
Project:	Permit Monitoring Wells	**Date Received:**	July11 &14, 2001
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier I data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Seven water samples were received for analysis at Columbia Analytical Services on July 11 &14, 2001. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Inorganic Parameters

No QA/QC anomalies were observed during the analysis of these samples.

Dissolved Metals

No QA/QC anomalies were observed during the analysis of these samples.

Pentachlorophenols by EPA Method 8151M

CCV Exceptions:
The analysis of Pentachlorophenol requires the use of dual column conformation. When the CCV criterion is acceptable for both columns, the higher of the two results is generally reported. If one of the CCV's is outside of the control criteria, results are reported from the column with a CCV with acceptable criterion.

The primary evaluation was not met on the confirmation column for Pentachlorophenol in the following Continuing Calibration Verifications CCV 0719F029. Results for this analyte has been reported from the other column. The data quality has not been affected. No further corrective action was necessary.

Approved by mil Date 8/6/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Permit Monitoring Wells
Sample Matrix: Water

Service Request: K2105011
Date Collected: 7/11-12/01
Date Received: 7/14/01
Date Extracted: NA
Date Analyzed: 7/18, 19/01

Solids, Total Suspended (TSS)
EPA Method 160.2
Units: mg/L (ppm)

Sample Name	Lab Code	MRL	Result
MW2	K2105011-001	5	ND
HCMW5	K2105011-002	5	ND
HCMW6	K2105011-003	5	218
HCMW7	K2105011-004	5	2910
MWA MW-2 duplicate	K2105011-005	5	ND
MWB Field blank	K2105011-006	5	ND
Method Blank	K2105011-MB	5	ND
Method Blank	K2105011-MB	5	ND

rpm
8/24/01

Approved By: _____ Date: 7/30/01

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1AMRL/102594
05011WET.PW1 - TSS 7/26/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	7/12/01
Sample Matrix:	Water	**Date Received:**	7/14/01

Dissolved Metals

Sample Name:	MW2	Units:	ug/L (ppb)
Lab Code:	K2105011-001	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Calcium	CLAA	6010B	50	1	7/18/01	7/25/01	10600	
Iron	CLAA	6010B	20	1	7/18/01	7/25/01	ND	
Magnesium	CLAA	6010B	20	1	7/18/01	7/25/01	6660	
Potassium	CLAA	6010B	2000	1	7/18/01	7/25/01	ND	
Sodium	CLAA	6010B	100	1	7/18/01	7/25/01	5660	

8/24/01

Approved By: _____ Date: 7/27/01

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	7/11/01
Sample Matrix:	Water	**Date Received:**	7/14/01

Dissolved Metals

Sample Name:	HCMW6	Units:	ug/L (ppb)
Lab Code:	K2105011-003	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Calcium	CLAA	6010B	50	1	7/18/01	7/25/01	10900	
Iron	CLAA	6010B	20	1	7/18/01	7/25/01	26	
Magnesium	CLAA	6010B	20	1	7/18/01	7/25/01	7040	
Potassium	CLAA	6010B	2000	1	7/18/01	7/25/01	ND	
Sodium	CLAA	6010B	100	1	7/18/01	7/25/01	4480	

8/24/01

Approved By: _____ Date: 7/27/01

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	7/12/01
Sample Matrix:	Water	**Date Received:**	7/14/01

Dissolved Metals

Sample Name:	HCMW7	Units:	ug/L (ppb)
Lab Code:	K2105011-004	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Calcium	CLAA	6010B	50	1	7/18/01	7/25/01	13000	
Iron	CLAA	6010B	20	1	7/18/01	7/25/01	ND	
Magnesium	CLAA	6010B	20	1	7/18/01	7/25/01	7790	
Potassium	CLAA	6010B	2000	1	7/18/01	7/25/01	ND	
Sodium	CLAA	6010B	100	1	7/18/01	7/25/01	5880	

8/24/01

Approved By: _____ Date: 7/27/01

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	7/12/01
Sample Matrix:	Water	**Date Received:**	7/14/01

Dissolved Metals

Sample Name: MWA MW-2 duplicate
Lab Code: K2105011-005
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Calcium	CLAA	6010B	50	1	7/18/01	7/25/01	10600	
Iron	CLAA	6010B	20	1	7/18/01	7/25/01	ND	
Magnesium	CLAA	6010B	20	1	7/18/01	7/25/01	6560	
Potassium	CLAA	6010B	2000	1	7/18/01	7/25/01	ND	
Sodium	CLAA	6010B	100	1	7/18/01	7/25/01	5520	

RMM
8/24/01

Approved By: _____ Date: 7/27/01

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	7/12/01
Sample Matrix:	Water	**Date Received:**	7/14/01

Dissolved Metals

Sample Name: MWB Field Blank
Lab Code: K2105011-006
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Calcium	CLAA	6010B	50	1	7/18/01	7/25/01	ND	
Iron	CLAA	6010B	20	1	7/18/01	7/25/01	ND	
Magnesium	CLAA	6010B	20	1	7/18/01	7/25/01	ND	
Potassium	CLAA	6010B	2000	1	7/18/01	7/25/01	ND	
Sodium	CLAA	6010B	100	1	7/18/01	7/25/01	ND	

pwm
9/11/01

Approved By: _____ Date: 8/28/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	07/12/2001
Sample Matrix:	Water	**Date Received:**	07/14/2001

Pentachlorophenol

Sample Name:	MW2	**Units:**	ug/L
Lab Code:	K2105011-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	1	07/17/01	07/19/01	KWG0104232	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	71	40-100	07/19/01	Acceptable

RHM
8/24/01

Comments: _____

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	07/12/2001
Sample Matrix:	Water	**Date Received:**	07/14/2001

Pentachlorophenol

Sample Name:	HCMW5	**Units:**	ug/L
Lab Code:	K2105011-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	1	07/17/01	07/19/01	KWG0104232	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	92	40-100	07/19/01	Acceptable

8/24/01

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	07/11/2001
Sample Matrix:	Water	**Date Received:**	07/14/2001

Pentachlorophenol

Sample Name:	HCMW6	**Units:**	ug/L
Lab Code:	K2105011-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	1.3		0.50	1	07/17/01	07/19/01	KWG0104232	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	90	40-100	07/19/01	Acceptable

RMM
8/24/01

Comments: _____

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	07/12/2001
Sample Matrix:	Water	**Date Received:**	07/14/2001

Pentachlorophenol

Sample Name:	HCMW7	**Units:**	ug/L
Lab Code:	K2105011-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	1	07/17/01	07/19/01	KWG0104232	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	69	40-100	07/19/01	Acceptable

RMM
8/24/01

Comments: _____

00015

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	07/12/2001
Sample Matrix:	Water	**Date Received:**	07/14/2001

Pentachlorophenol

Sample Name:	MWA MW-2 duplicate	**Units:**	ug/L
Lab Code:	K2105011-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	1	07/17/01	07/19/01	KWG0104232	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	75	40-100	07/19/01	Acceptable

RWM
8/24/01

Comments: _____

U1016

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2105011
Project:	Permit Monitoring Wells	**Date Collected:**	07/12/2001
Sample Matrix:	Water	**Date Received:**	07/14/2001

Pentachlorophenol

Sample Name:	MWB	**Units:**	ug/L
Lab Code:	K2105011-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Field Blank

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	1	07/17/01	07/19/01	KWG0104232	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	56	40-100	07/19/01	Acceptable

RMM
8/24/01

Comments:

00017

Columbia Analytical Services INC.
An Employee-Owned Company

August 7, 2001

Service Request No: K2104874
K2104907

Richard Morales
J.H. Baxter Company
1700 El Camino Real
P.O. Box 5902
San Mateo, CA 94402-0902

Re: J.H. Baxter & Co./BXS/BXN Wells

Dear Richard:

Enclosed are the results of the sample(s) submitted to our laboratory on July 10, 2001. For your reference, these analyses have been assigned our service request number K2104874.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3345.

Respectfully submitted,

Columbia Analytical Services, Inc.

Mingta Lin
Project Chemist

ML/ll

cc: Mary Larson, J.H. Baxter (Arlington)
Lori Herman, Hart Crowser (Seattle)

317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 360/ 577-7222 • Fax 360/636-1068

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	J.H. Baxter & Company	**Service Request No.:**	K2104874 K2104907
Project:	BXS/BXN Wells	**Date Received:**	July10 &11, 2001
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier I data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Twelve water samples were received for analysis at Columbia Analytical Services on July 10 &11, 2001. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Inorganic Parameters

The samples were receive past the recommended holding time of 24 hours for Total Coliform and pH analysis.

No QA/QC anomalies were observed during the analysis of these samples.

Dissolved Metals

No QA/QC anomalies were observed during the analysis of these samples.

Approved by mtl Date 8/7/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Permit Monitoring Wells
Sample Matrix: Water

Service Request: K2104914
Date Collected: 7/10/01
Date Received: 7/11/01
Date Extracted: NA
Date Analyzed: 7/12/01

Solids, Total Suspended (TSS)
EPA Method 160.2
Units: mg/L (ppm)

Sample Name	Lab Code	MRL	Result
BXS-1	K2104914-001	5	ND
Method Blank	K2104914-MB	5	ND

8/24/01

Approved By: _____ Date: 7/25/01

1AMRL/102594
04914WET.PW1 - TSS 7/25/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Permit Monitoring Wells
Sample Matrix: Water

Service Request: K2104914
Date Collected: 7/10/01
Date Received: 7/11/01
Date Extracted: 7/23/01

Dissolved Metals
Units: µg/L (ppb)

		Sample Name:	BXS-1	Method Blank
		Lab Code:	K2104914-001	K2104914-MB
		Date Analyzed:	7/23/01	7/23/01
Analyte	**EPA Method**	**MRL**		
Calcium	6010B	50	46800	ND
Iron	6010B	20	ND	ND
Magnesium	6010B	20	28700	ND
Potassium	6010B	2000	ND	ND
Sodium	6010B	100	12200	ND

8/24/01

Approved By: _____ Date: 7/24/01

3S30EPA/102094
04914ICP.JC1 - Sample 7/24/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Permit Monitoring Wells
Sample Matrix: Water

Service Request: K2104914
Date Collected: 07/10/2001
Date Received: 07/11/2001

Pentachlorophenol

Sample Name: BXS-1
Lab Code: K2104914-001

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	25		0.50	1	07/12/01	07/19/01	KWG0104126	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	80	40-100	07/19/01	Acceptable

RHM
8/24/01

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2104907
Date Collected: 7/10/01
Date Received: 7/11/01
Date Extracted: NA

Inorganic Parameters
Units: mg/L (ppm)

	Sample Name:	BXS-1	BXS-2	BXS-3
	Lab Code:	K2104907-001	K2104907-002	K2104907-003
Analyte	**EPA Method**	**MRL**		
pH (units)	150.1	--	6.09 J	6.44 J	6.64 J
Conductivity (µmhos/cm)	120.1	2	489	890	885
Bicarbonate Alkalinity as $CaCO_3$	*SM* 2320B	2	242	496	498
Ammonia as Nitrogen	350.1	0.05	ND	ND	0.11
Chemical Oxygen Demand (COD)	410.2	5	23	46	71
Chloride	300.0	0.2	5.6	6.7	4.4
Nitrate+Nitrite as Nitrogen	353.2	0.2	0.4	ND	ND
Solids, Total Dissolved (TDS)	160.1	5	212	320	420
Sulfate	300.0	0.2	7.2	0.3	0.2
Tannin and Lignin	*SM* 5550B	0.2	0.5	1.4	6.4
Carbon, Total Organic (TOC)	415.1	0.5	6.8	15.1	25.9

RLM
8/24/01

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Approved By: _____ Date: 7/25/01

3S30EPA/102094

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2104907
Date Collected: 7/10/01
Date Received: 7/11/01
Date Extracted: NA

Inorganic Parameters
Units: mg/L (ppm)

Field Blank

BXS-1 Duplicate

	Sample Name:	BXS-4	BXS-5	BXS-6
	Lab Code:	K2104907-004	K2104907-005	K2104907-006
Analyte	**EPA Method**	**MRL**		
pH (units)	150.1	--	7.96 J	5.53 J	6.12 J
Conductivity (µmhos/cm)	120.1	2	193	ND	490
Bicarbonate Alkalinity as $CaCO_3$	*SM* 2320B	2	96	ND	250
Ammonia as Nitrogen	350.1	0.05	0.53	ND	ND
Chemical Oxygen Demand (COD)	410.2	5	38	ND	24
Chloride	300.0	0.2	2.0	ND	5.5
Nitrate+Nitrite as Nitrogen	353.2	0.2	ND	ND	0.4
Solids, Total Dissolved (TDS)	160.1	5	134	ND	262
Sulfate	300.0	0.2	1.6	ND	7.1
Tannin and Lignin	*SM* 5550B	0.2	0.4	ND	0.5
Carbon, Total Organic (TOC)	415.1	0.5	9.3	ND	7.3

jkm
8/24/01

SM *Standard Methods for the Examination of Water and Wastewater*, 18th Ed., 1992.

Approved By: _____ Date: 7/25/01

00006

3S30EPA/102094

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2104907
Date Collected: 7/10/01
Date Received: 7/11/01
Date Extracted: NA
Date Analyzed: 7/11/01

Coliform, Total
SM 9221B
Units: MPN/100 ml

Sample Name	Lab Code	MRL	Time Test Started		Result
BXS-1	K2104907-001	2 J	1600	hrs	ND UJ
BXS-2	K2104907-002	2	1600	hrs	500 J
BXS-3	K2104907-003	2	1600	hrs	ND UJ
BXS-4	K2104907-004	2	1600	hrs	ND UJ
BXS-5 Field Blank	K2104907-005	2	1600	hrs	ND UJ
BXS-6 BXS-1 Duplicate	K2104907-006	2	1600	hrs	ND UJ

RHM
8/24/01

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Approved By: _____ Date: 7/25/01

04907WET.PW1 - BactTC 7/25/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2104907
Date Collected: 7/10/01
Date Received: 7/11/01
Date Extracted: 7/16/01

Dissolved Metals
Units: µg/L (ppb)

		Sample Name:	BXS-1	BXS-2	BXS-3
		Lab Code:	K2104907-001	K2104907-002	K2104907-003
		Date Analyzed:	7/17-23/01	7/17-23/01	7/17-23/01
Analyte	**EPA Method**	**MRL**			
Arsenic	7060A	5	ND	ND	9
Barium	6010B	5	27	53	64
Cadmium	6010B	4	ND	ND	ND
Copper	6010B	10	ND	ND	ND
Iron	6010B	20	ND	736	8530
Manganese	6010B	5	396	1540	17100
Nickel	6010B	20	27	41	38
Zinc	6010B	10	ND	ND	ND

8/27/01

Approved By: _____ Date: 7/24/01

U0009

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2104907
Date Collected: 7/10/01
Date Received: 7/11/01
Date Extracted: 7/16/01

Dissolved Metals
Units: µg/L (ppb)

Field Blank

BXS-1 Duplicate

	Sample Name:	BXS-4	BXS-5	BXS-6
	Lab Code:	K2104907-004	K2104907-005	K2104907-006
	Date Analyzed:	7/17-23/01	7/17-23/01	7/17-23/01
Analyte	**EPA Method**	**MRL**		
Arsenic	7060A	5	5	ND	ND
Barium	6010B	5	32	ND	27
Cadmium	6010B	4	ND	ND	ND
Copper	6010B	10	ND	ND	ND
Iron	6010B	20	438	ND	ND
Manganese	6010B	5	123	ND	400
Nickel	6010B	20	ND	ND	26
Zinc	6010B	10	ND	ND	ND

8/24/01

Approved By: _____ Date: 7/24/01

3S30EPA/102094
049071CP.JC1 - Sample (2) 7/24/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: J.H. Baxter & Co./BXN-WELLS
Sample Matrix: Water

Service Request: K2104874
Date Collected: 7/9/01
Date Received: 7/10/01
Date Extracted: NA

Inorganic Parameters
Units: mg/L (ppm)

	Sample Name:	BXN-1	BXN-2	BXN-3
	Lab Code:	K2104874-001	K2104874-002	K2104874-003
Analyte	**EPA Method**	**MRL**		
pH (units)	150.1	--	6.40 J	6.50 J	6.49 J
Conductivity (µmhos/cm)	120.1	2	392 J	224	705
Ammonia as Nitrogen	350.3	0.05	17.0 J	1.10 U J	1.30 U J
Chemical Oxygen Demand (COD)	410.2	5	ND	7	30
Chloride	300.0	0.2	40.9	8.4	23.0
Nitrate+Nitrite as Nitrogen	353.2	0.2	1.1	2.2	ND
Solids, Total Dissolved (TDS)	160.1	10	226	134	424
Sulfate	300.0	0.2	19.2	16.7	10.7
Tannin and Lignin	*SM*5550B	0.2	0.7	0.3	2.8
Carbon, Total Organic (TOC)	415.1	0.5	1.7	2.3	8.5

8/24/01

SM *Standard Methods for the Examination of Water and Wastewater*, 18th Ed., 1992.

Approved By: _____ Date: 7/26/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: J.H. Baxter & Co./BXN-WELLS
Sample Matrix: Water

Service Request: K2104874
Date Collected: 7/9/01
Date Received: 7/10/01
Date Extracted: NA

Inorganic Parameters
Units: mg/L (ppm)

BXN-1 Duplicate Field Bl.

Sample Name:		BXN-4	BXN-5	BXN-6
Lab Code:		K2104874-004	K2104874-005	K2104874-006
Analyte	**EPA Method**	**MRL**		
pH (units)	150.1	--	6.70 J	6.31 J	5.61 J
Conductivity (µmhos/cm)	120.1	2	647	3310 J	ND
Ammonia as Nitrogen	350.3	0.05	18.0	1.64 UJ	1.57
Chemical Oxygen Demand (COD)	410.2	5	31	6	ND
Chloride	300.0	0.2	26.8	42.8	ND
Nitrate+Nitrite as Nitrogen	353.2	0.2	0.5	1.1	ND
Solids, Total Dissolved (TDS)	160.1	10	316	230	ND
Sulfate	300.0	0.2	10.0	19.7	ND
Tannin and Lignin	*SM*5550B	0.2	2.9	0.5	ND
Carbon, Total Organic (TOC)	415.1	0.5	10.4	2.4	ND

RMM
8/24/01

SM *Standard Methods for the Examination of Water and Wastewater*, 18th Ed., 1992.

Approved By: MMR Date: 7/26/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: J.H. Baxter & Co./BXN-WELLS
Sample Matrix: Water

Service Request: K2104874
Date Collected: 7/9/01
Date Received: 7/10/01
Date Extracted: NA
Date Analyzed: 7/10/01

Coliform, Total
SM 9221B
Units: MPN/100 ml

Sample Name	Lab Code	MRL	Time Test Started		Result
BXN-1	K2104874-001	2	1710	hrs	4 ~~(X)~~ J
BXN-2	K2104874-002	2	1710	hrs	ND ~~(X)~~ UJ
BXN-3	K2104874-003	2	1710	hrs	ND ~~(X)~~ UJ
BXN-4	K2104874-004	2	1710	hrs	ND ~~(X)~~ UJ
BXN-5 BXN-1 Duplicate	K2104874-005	2	1710	hrs	2 ~~(X)~~ J
BXN-6 Field Blank	K2104874-006	2	1710	hrs	ND ~~(X)~~ UJ

KMM
8/27/01

SM *Standard Methods for the Examination of Water and Wastewater*, 18th Ed., 1992.

Approved By: CMMK Date: 7/26/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: J.H. Baxter & Co./BXN-WELLS
Sample Matrix: Water

Service Request: K2104874
Date Collected: 7/9/01
Date Received: 7/10/01
Date Extracted: 7/16/01

Dissolved Metals
Units: µg/L (ppb)

		Sample Name:	BXN-1	BXN-2	BXN-3
		Lab Code:	K2104874-001	K2104874-002	K2104874-003
		Date Analyzed:	7/17-23/01	7/17-23/01	7/17-23/01
Analyte	**EPA Method**	**MRL**			
Arsenic	7060A	5	ND	ND	19
Barium	6010B	5	19	7	119
Cadmium	6010B	4	ND	ND	ND
Copper	6010B	10	ND	ND	ND
Iron	6010B	20	3340	ND	31300
Manganese	6010B	5	1510	849	4440
Nickel	6010B	20	39	26	44
Zinc	6010B	10	ND	ND	ND

8/24/01

Approved By: _____ Date: 7/24/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: J.H. Baxter & Co./BXN-WELLS
Sample Matrix: Water

Service Request: K2104874
Date Collected: 7/9/01
Date Received: 7/10/01
Date Extracted: 7/16/01

Dissolved Metals
Units: µg/L (ppb)

BXN-1 Duplicate — Field Blank

Sample Name:	BXN-4	BXN-5	BXN-6
Lab Code:	K2104874-004	K2104874-005	K2104874-006
Date Analyzed:	7/17-23/01	7/17-23/01	7/17-23/01

Analyte	EPA Method	MRL			
Arsenic	7060A	5	ND	ND	ND
Barium	6010B	5	120	20	ND
Cadmium	6010B	4	ND	ND	ND
Copper	6010B	10	24	ND	ND
Iron	6010B	20	48	3370	ND
Manganese	6010B	5	5330	1540	ND
Nickel	6010B	20	73	36	ND
Zinc	6010B	10	ND	ND	ND

8/27/01

Approved By: _____ Date: 7/24/01

Columbia Analytical Services, INC.
An Employee-Owned Company

CHAIN OF CUSTODY

SR#: K2104874

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

PAGE 1 OF 1 COC #

PROJECT NAME: J.H. Baxter & Co.
PROJECT NUMBER: BXN Wells - Landfill
PROJECT MANAGER: Tom Orthmeyer
COMPANY/ADDRESS: 6520 188th St NE, Arlington WA 98223
PHONE #: 360 435-2146 FAX #: 360 435-3035
SAMPLER'S SIGNATURE: Jim Clawson

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
BXN-1	7-9	2:15p	1	Water	4	
BXN-2	7-9	1:00p	2		4	
BXN-3	7-9	3:00p	3		4	
BXN-4	7-9	11:30A	4		4	
BXN-5	7-9	3:00p	5		4	
BXN-6	7-9	1:30p	6	↓	4	

Semivolatile Organics by GC/MS 625 ☐ 8270 ☐
Volatile Organics 624 ☐ 8260 ☐ 8021 ☐ BTEX ☐
Hydrocarbons (*see below) Gas ☐ Diesel ☐ Oil ☐
☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen
Oil & Grease/TRPH 413.1 ☐ 418.1 ☐ 1664 SGT ☐ 1664 HEM ☐
PCB's Aroclors ☐ Congeners ☐
Pesticides/Herbicides 608 ☐ 8081A ☐ 8141A ☐ 8151A ☐
Chlorophenolics - 8151M Tri ☐ Tetra ☐ PCP ☐
PAHS 8310 ☐ SIM ☐
GC/MS-SIM PAH ☐ Phenol ☐ Phthalates ☐
(Metals) Total or Dissolved (See list below)
Cyanide ☐
(pH) Cond ☐ Hex-Chrom ☐
(NO3) BOD, TSS, (SO4), PO4, F, (NO2)
(NH3-N) COD (circle) Total-P, TKN, TOC
DOC (circle)
TOX 9020 ☐ AOX 1650 ☐ 506 ☐
Tannin/Lignin
Total Coliforms
U11021

REPORT REQUIREMENTS

- X I. Routine Report: Method Blank, Surrogate, as required
- ___ II. Report Dup., MS, MSD as required
- ___ III. Data Validation Report (includes all raw data)
- ___ IV. CLP Deliverable Report
- ___ V. EDD

INVOICE INFORMATION

P.O. #
Bill To: J.H. Baxter & Co
PO Box 5902
San Mateo CA 94402

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al (As) Sb (Ba) Be B Ca (Cd) Co Cr (Cu) (Fe) Pb Mg (Mn) Mo (Ni) K Ag Na Se Sr Tl Sn V (Zn) Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER: _____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

Attn: Georgia Baxter
Mary Larson

Field Filtered

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Jim Clawson 7-9-01 4:00pm	7-10-01		
Signature / Date/Time	Signature / Date/Time	Signature / Date/Time	Signature / Date/Time
Jim Clawson J.H. Baxter & Co.	K Morrow CAS 1520		
Printed Name / Firm	Print Name / Firm		

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SR#: 1010502 #1

PAGE 1 OF 1 COC # 1110

PROJECT NAME: J.H. Baxter & Co
PROJECT NUMBER: Permit Monitoring Wells
PROJECT MANAGER: Tom Orthmeyer
COMPANY/ADDRESS: 6520 188th St SE, Arlington, WA 98223
PHONE #: 360 435-2416 FAX #: 360 435-3035
SAMPLER'S SIGNATURE: Jim Clawson

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
BXS 1				Water	3	
MW 2	7-12	8:00AM	1		3	
HCMW 5	7-12	12:00pm	2		3	
HCMW 6	7-12	4:30pm	3		3	
HCMW 7	7-12	2:30pm	4		3	
MW A	7-12	9:15AM	5		3	
MW B	7-12	10:30AM	6	↓	3	

Semivolatile Organics by GC/MS 625☐ 8270☐
Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐
Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐
☐ Fuel Fingerprint (FIQ)
☐ NW-HCID Screen
Oil & Grease/TRPH 413.1☐ 418.1☐ 1664 SGT☐ 1664 HEM☐
PCB's Aroclors☐ Congeners☐
Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐
Chlorophenolics - 8151M Tri☐ Tetra☐ (PCP)
PAHS 8310☐ SIM☐
GC/MS-SIM PAH☐ Phenol☐ Phthalates☐
(Metals:) Total or Dissolved (See list below)
Cyanide☐ Hex-Chrom☐
pH, Cond., Cl, SO_4, PO_4, F, NO_2, NO_3, BOD, (TSS) TDS (circle)
NH_3-N, COD, Total-P, TKN, TOC, DOC (circle)
TOX 9020☐ AOX 1650☐ 506☐

REPORT REQUIREMENTS

- X I. Routine Report: Method Blank, Surrogate, as required
- ___ II. Report Dup., MS, MSD as required
- ___ III. Data Validation Report (includes all raw data)
- ___ IV. CLP Deliverable Report
- ___ V. EDD

INVOICE INFORMATION

P.O. #
Bill To: J.H. Baxter & Co.
PO Box 5902
San Mateo, CA 94402

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B (Ca) Cd Co Cr Cu (Fe) Pb (Mg) Mn Mo Ni (K) Ag (Na) Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

Attn: Georgia Baxter
Mary Larson

Field Filtered

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Jim Clawson 7-12-01 3:30pm			
Signature Date/Time	Signature Date/Time	Signature Date/Time	Signature Date/Time
Jim Clawson J.H. Baxter & Co.			
Printed Name Firm	Printed Name Firm	Printed Name Firm	Printed Name Firm

Columbia Analytical Services INC.
An Employee Owned Company

CHAIN OF CUSTODY

SR#: K2104914

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

PAGE 1 OF 1 COC #

PROJECT NAME J.H. Baxter & Co.

PROJECT NUMBER Permit Monitoring Wells

PROJECT MANAGER Tom Orthmeyer

COMPANY/ADDRESS 6520 188th St NE Arlington, WA 98223

PHONE # 360 435-2146

FAX # 360 435-3035

SAMPLER'S SIGNATURE Jim Clawson

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625☐ 8270☐	Volatile Organics 624☐ 8260☐	Hydrocarbons (*see below) Gas☐ 8021☐ BTEX☐	☐ Fuel Fingerprint (FIQ) Diesel☐ Oil☐	☐ NW-HCID Screen	Oil & Grease/TRPH 413.1☐ 418.1☐ 1664 SGT☐ 1664 HEM☐	PCB's Aroclors☐	Pesticides/Herbicides 608☐ 8081A☐ Congeners☐	Chlorophenolics - 8151M Tri☐ Tetra☐ 8141A☐ 8151A☐ PCP☒	PAHS 8310☐ SIM☐	GC/MS-SIM PAH☐ Phenol☐	Metals, Total or Dissolved (See list below) Phthalates☐	Cyanide☐	pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) Hex-Chrom☐	NH3-N, COD, Total-P, TKN, TOC, DOC (circle)	TOC 9020☐ AOX 1650☐ 506☐					REMARKS
BXS-1	7-10	~~[illegible]~~ 1:04pm		Water	3									X			X		X							

REPORT REQUIREMENTS

X I. Routine Report: Method Blank, Surrogate, as required

__ II. Report Dup., MS, MSD as required

__ III. Data Validation Report (includes all raw data)

__ IV. CLP Deliverable Report

__ V. EDD

INVOICE INFORMATION

P.O. #

Bill To: JH Baxter & Co. PO Box 5902 San Mateo, CA 94402

TURNAROUND REQUIREMENTS

__ 24 hr. __ 48 hr.

__ 5 Day

X Standard (10-15 working days)

__ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

(Dissolved Metals:) Al As Sb Ba Be B (Ca) Cd Co Cr Cu (Fe) Pb (Mg) Mn Mo Ni (K) Ag (Na) Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER:____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

Attn: Georgia Baxter
Mary Larson

FIELD FILTERED

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Jim Clawson Date/Time: 7-10-01 4:30pm	Signature: [signature] Date/Time: 7/11/01 1530	Signature Date/Time	Signature Date/Time
Printed Name: Jim Clawson Firm: JH Baxter & Co.	Printed Name: [illegible] Firm: CAS		

01025

Columbia Analytical Services, INC.
An Employee-Owned Company

CHAIN OF CUSTODY

SR#: 1210407

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PAGE 1 OF 1 COC #

PROJECT NAME: J. H. Baxter & Co
PROJECT NUMBER: BXS Wells - Landfill
PROJECT MANAGER: Tom Orthmeyer
COMPANY/ADDRESS: 16520 188th St NE, Arlington WA 98223
PHONE #: 360 435-2146 FAX #: 360 435-3035
SAMPLER'S SIGNATURE: Jim Clawson

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625 ☐ 8270 ☐	Volatile Organics 624 ☐ 8260 ☐ 8021 ☐ BTEX ☐	Hydrocarbons (*see below) Gas ☐ Diesel ☐ Oil ☐ ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen	Oil & Grease/TRPH 413.1 ☐ 418.1 ☐ 1664 SGT ☐ 1664 HEM ☐	PCB's Aroclors ☐ Congeners ☐	Pesticides/Herbicides 608 ☐ 8081A ☐ 8141A ☐ 8151A ☐	Chlorophenolics - 8151M Tri ☐ Tetra ☐ PCP ☐	PAHS 8310 ☐ SIM ☐	GC/MS-SIM PAH ☐	Phenol ☐ Phthalates ☐ (Metals) Total or (Dissolved) (See list below)	Cyanide ☐	Hex-Chrom ☐	pH Cond. CLSO4 (NO3) BOD. TSS. TDS PO4. F (NO2) NH3-N COD (circle)	Total-P. TKN. TOC. DOC (circle)	TOX 9020 ☐ AOX 1650 ☐ 506 ☐	Tannin/Lignin	Total Coliforms		REMARKS
BXS-1	7-10	1:00 pm	1	Water	4										X		X			X	X				
BXS-2	7-10	2:00pm	2		4										X		X			X	X				
BXS-3	7-10	3:00pm	3		4										X		X			X	X				
BXS-4	7-10	10:15Am	4		4										X		X			X	X				
BXS-5	7-10	8:30AM	5		4										X		X			X	X				
BXS-6	7-10	12:00pm	6	↓	4										X		X			X	X				

REPORT REQUIREMENTS

- X I. Routine Report: Method Blank, Surrogate, as required
- ___ II. Report Dup., MS, MSD as required
- ___ III. Data Validation Report (includes all raw data)
- ___ IV. CLP Deliverable Report
- ___ V. EDD

INVOICE INFORMATION

P.O. # ___
Bill To: J.H. Baxter & Co.
PO Box 5902
San Mateo, CA 94402

TURNAROUND REQUIREMENTS

- ___ 24 hr. ___ 48 hr.
- ___ 5 Day
- X Standard (10-15 working days)
- ___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al (As) Sb (Ba) Be B Ca (Cd) Co Cr (Cu) (Fe) Pb Mg (Mn) Mo (Ni) K Ag Na Se Sr Tl Sn V (Zn) Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: ___ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

Attn: Georgia Baxter
Mary Larson

Field Filtered -

RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Jim Clawson	7-10-01 4:30pm		7/11/01 1400				
Signature	Date/Time	Signature	Date/Time	Signature	Date/Time	Signature	Date/Time
Jim Clawson	J.H. Baxter & Co						
Printed Name	Firm	Printed Name	Firm	Printed Name	Firm	Printed Name	Firm